In view of the arguments below, applicants maintain that the Examiner's rejection has been overcome, and respectfully request that it be withdrawn.

Rejection Under 35 U.S.C. §103(a)

The Examiner rejected claim 46 under 35 U.S.C. §103(a) as allegedly unpatentable over, U.S. Patent No. 5,543,296 (Sobol, et al.), U.S. Patent No. 5,644,033 (Seon, et al.), U.S. Patent No. 5,612,185 (Uhr, et al.), and Bom-van Noorloos, et al.

In response to the Examiner's rejection, applicants respectfully traverse, and maintain that the Examiner has failed to establish a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, the Examiner must demonstrate three things with respect to each claim. First, the cited references, when combined, teach or suggest every element of the claim. Second, one of ordinary skill would have been motivated to combine the teachings of the cited references at the time of the invention. And third, there would have been a reasonable expectation that the claimed invention would succeed.

In light of these requirements, applicants maintain that the cited references fail to support a *prima facie* case of obviousness for claim 46.

Claim 46 provides an assay for detecting whether a subject has non-Hodgkins lymphoma. The assay comprises, in relevant part, the step of incubating a suitable body fluid sample with an antibody that binds to a polypeptide having SEQ ID NO:2, i.e., a polypeptide encoded by the bcl-6 gene. The detection of this polypeptide in a subject's sample indicates that the subject has

non-Hodgkins lymphoma.

The assay of claim 46 is based on applicants' *surprising discovery* that the polypeptide of SEQ ID NO:2, encoded by the bcl-6 gene, characterizes non-Hodgkins lymphoma.

The cited references, in combination, fail to teach all elements of the instant assay. In particular, these references fail to teach an antibody which binds to the polypeptide of SEQ ID NO:2, or its use in diagnosing non-Hodgkins lymphoma. Indeed, as even the Examiner concedes, the cited references do not teach diagnosing non-Hodgkins lymphoma using an antibody reactive with non-Hodgkins lymphoma cells.

Rather, the teachings of the cited references are, at most, inapposite to the instant assay. According to the Examiner, Sobol, et al. teach an assay using an anti-tumor cell antibody. Seon, et al. teach antibodies that bind to non-Hodgkins lymphoma cells. Uhr, et al. teach antibodies having potential use in the treatment of non-Hodgkins lymphoma. Finally, Bom-van Noorloos, et al. teach enrichment of malignant cells from a mixed cell population. Again, none of these references teaches the antibody of the instant assay which applicants conceived based on their unexpected discovery relating to the bcl6 gene.

For the reasons above, the cited references combined fail to teach the elements of the claimed assay. Absent such teaching, there could not have been a motive to combine or a reasonable expectation of success.

In view of the above remarks, applicants maintain that the Examiner has failed to set forth a *prima facie* case of obviousness, and that accordingly, claim 46 satisfies the

requirements of 35 U.S.C. §103(a).

Summary

For the reasons set forth hereinabove, applicants respectfully request that the Examiner reconsider and withdraw the rejection, and earnestly solicit allowance of the pending claim.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorneys invite the Examiner to telephone them at the number provided below.

No fee, other than the enclosed $200.00 for a two-month extension of time, is deemed necessary in connection with the filing of

this Amendment. However, if any additional fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents Washington, D.C. 20231.

5/5/02
Alan J. Morrison Date
Reg. No. 37,399

John P. White
Registration No. 28,678
Alan J. Morrison
Registration No. 37,399
Attorneys for Applicants
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, New York 10036
(212) 278-0400

Marked-Up Version of Amended Claim:

46. (Amended) An assay for determining whether a subject has non-Hodgkins lymphoma comprising:

(a) incubating a sample of suitable body fluid from the subject with [a monoclonal antibody reactive with non-Hodgkin's lymphoma cells] an antibody that binds to a polypeptide having the sequence set forth in SEQ ID NO:2, [which] wherein the antibody is bound to a solid support;

(b) [removing unbound cells] separating the sample from the support, and

(c) determining [the presence of non-Hodgkins lymphoma cells bound to the support] whether the polypeptide is bound to the antibody, [such presence indicating that] the presence of the polypeptide indicating that the subject has non-Hodgkins lymphoma.